

# Science



<p><b>Lower Key Stage 2</b></p> <p><b>Year A Autumn Term</b></p>	<p>Big Picture Question: <b>Light</b></p>			<p>Resources</p>
<p><b>Read, spell and pronounce vocabulary with confidence -:</b></p> <p><b>Scientific vocabulary:</b> Recognise, notice, explore, describe, explain, observe, appearance, investigate, effects, similar, different, similarity, difference, environment, diagram, patterns, predict, <b>Topic-specific vocabulary:</b> Light, light source, dark, absence of light, transparent, translucent, opaque, shiny, matt, surface, shadow, reflect, mirror, sunlight, dangerous, eclipse,</p>				<p>Sunlight!</p> <p>Light sources – torches, lamps, candles,</p> <p>Different surfaces</p>
<p><b>Science skills</b></p> <p>Developed through:</p> <ul style="list-style-type: none"> <li>questioning</li> <li>using evidence</li> <li>enquiries and testing</li> <li>observations and measurement data</li> <li>conclusions and predictions</li> <li>differences, similarities and changes</li> </ul>	<p>What we want children to <b>know</b>:</p> <ul style="list-style-type: none"> <li>Recognise that they need light in order to see things and that dark is the absence of light</li> <li>Notice that light is reflected from surfaces</li> <li>Recognise that light from the sun can be dangerous and that there are ways to protect their eyes</li> <li>Recognise that shadows are formed when the light from a light source is blocked by a solid object</li> <li>Find patterns in the way that the size of shadows change.</li> </ul>	<p>Science skills to be developed:</p> <ul style="list-style-type: none"> <li>Explore how different objects are more or less visible in different levels of lighting</li> <li>Explore how objects with different surfaces e.g. shiny vs matt are more or less visible</li> <li>Explore how shadows vary as the distance between a light source, an object or surface is changed</li> <li>Explore shadows which are connected to and disconnected from the object e.g. shadows of clouds and children in the playground</li> <li>Choose suitable materials to make shadow puppets</li> <li>Create artwork using shadows</li> </ul>	<p>Possible evidence:</p> <p><b>Shows understanding of a concept using scientific vocabulary correctly</b></p> <ul style="list-style-type: none"> <li>Describe how we see objects in light and can describe dark as the absence of light</li> <li>State that it is dangerous to view the sun directly and state precautions used to view the sun, for example in eclipses</li> <li>Define transparent, translucent and opaque</li> <li>Describe how shadows are formed by objects blocking light.</li> </ul> <p><b>Applying knowledge in familiar related contexts, including a range of enquiries</b></p> <ul style="list-style-type: none"> <li>Describe patterns in visibility of different objects in different lighting conditions and predict which will be more or less visible as conditions change</li> <li>Clearly explain, giving examples, that objects are not visible in complete darkness</li> <li>Describe and demonstrate how shadows are formed by blocking light</li> <li>Describe, demonstrate and make predictions about patterns in how shadows vary</li> </ul>	<p>Material to make shadow puppets</p>